

CYLINDRICAL BRUSH IDLER-SIDE TAPER ADJUSTMENT ASSEMBLY

Abstract of the Disclosure

The present invention provides an adjustment mechanism and methods for adjusting the alignment of a powered cylindrical brush mounted to a surface maintenance vehicle relative to a surface to be maintained or cleaned by the vehicle. The device is preferably disposed upon the idler-side of a powered rotating cylindrical brush assembly and the adjustment preferably occurs via use of an eccentric cam member providing a range or motion, or pivot location, through or about which the idler-side mounting location of the cylindrical brush may be adjusted to improve contact with the surface.

The present invention enables such adjustment without decoupling the rotating brush from its couplings (both supportive and rotational coupling), and any coupling to a drive mechanism for driving the rotating brush into rotation. The rotating brush so adjusted will benefit from improved mechanical cooperation between the bristles of the brush and the surface to be cleaned. If at least two counter-rotating cylindrical brush assemblies are disposed on a single surface maintenance vehicle each may be adjusted with respect to the surface and to the other brush disposed therein. Another aspect of the present invention is to allow a single operator to perform brush taper adjustments without disassembly of any connecting components for operating the rotating cylindrical brush assembly during cleaning operations, including even the side covers or other brush mounting components and any drive gear associated thereto. The apparatus and methods of the present invention are intended to readily accommodate rapid adjustment in the course of surface cleaning operations by a single manual operator or technician preferably either by hand or via use of a single rudimentary adjustment instrument operating upon a single adjustable mounting location to change the state of the single adjustable mounting location from a partially-released state to a fully-coupled state.